

50-12
USDA-SCS
Section II-E
Technical Guide
Area 4, Texas

LOAMY BOTTOMLAND

RANGE SITE DESCRIPTION

PE-50-64

2084C41917K

Land Resource Area BL and ICD

Location Bonham and Sherman

Date 9/15/72

1. TOPOGRAPHY AND ELEVATION: This site is nearly level and occupies the flood plains of large local streams. Slopes are commonly less than 1 percent.

2. SOILS:

a. The soils of this site are deep with loamy surfaces and stratified loamy or clayey subsoils. Permeability is moderate to moderately slow on these well drained soils. Runoff is slow to medium with some areas occasionally to frequently flooded for short periods of time.

b. Some soil taxonomic units which characterize this site are:

Culen clay loam
Frio clay loam
Bunyan fine sandy loam

c. Specific site location:

3. CLIMAX VEGETATION:

a. The climax plant community is an open savannah with about 20 percent tree canopy of elm, pecan and oaks, with varying amounts of underbrush. Little bluestem is the climax dominant contributing about 35-50 percent of the total annual yield. Switchgrass and big bluestem are subdominants. The great variety of plants native to this site affords numerous potential multiple uses.

RELATIVE PERCENTAGE

| Grasses | 80% | Woody | 15% | Forbs | 5% |
|-----------------------------|-----|-------------------|-----|----------------------|----|
| Little bluestem | 45 | Pecan | | Maximilian sunflower | |
| Switchgrass | 20 | Elm | 15 | Tickclovers | |
| Big bluestem | | Postoak | | Wildbeans | |
| Indiangrass | | Hackberry | | Snoutbeans | 5 |
| Canada, Virginia wildrye | 10 | Red cedar | | Penstemon | |
| Eastern gamagrass | | Western soapberry | | Gayfeather | |
| Purpletop | | Creeper | T | Gaura | |
| Sand lovegrass | | Red mulberry | | Daleas | |
| Texas bluegrass | | Downy viburnum | | | |
| Beaked panicum | | Texas sophora | | | |
| Florida paspalum | | | | | |
| Vine mesquite | | | | | |
| Scribner panicum | 5 | | | | |
| Fringeleaf paspalum | | | | | |
| Sideoats grama | | | | | |
| Texas wintergrass | | | | | |
| Meadow dropseed | | | | | |
| White tridens | | | | | |
| Sedges | | | | | |
| Buffalograss | | | | | |
| Plains lovegrass | | | | | |
| Silver bluestem | | T | | | |

- b. As retrogression occurs under cattle abuse little bluestem, big bluestem, switchgrass, Indiangrass, Beaked panicum and Florida paspalum decrease in vigor and abundance and are replaced by such plants as sideoats grama and meadow dropseed. After initial increase, sideoats grama and meadow dropseed and several climax forbs decrease as departure from climax continues. As the herbaceous plant community retrogresses, the woody overstory increases in density. Mesquite, winged elm, honey locust, osage orange, purple lovegrass, gaping panicum, ragweeds, nightshades and numerous annuals invade the site as retrogression occurs.
- c. Approximate total annual yield of this site in excellent condition ranges from 4000 pounds per acre in poor years to 7500 pounds per acre of air-dry vegetation in good years.
- 4. WILDLIFE NATIVE TO THE SITE: Deer, dove, quail, turkey and squirrel are native to this site as well as many small rodents and fur-bearers and numerous song birds.

5. GUIDE TO INITIAL STOCKING RATE:

| <u>a. Condition Class</u> | <u>Climax Vegetation</u> | <u>Ac/AU/YL</u> |
|---------------------------|--------------------------|-----------------|
| Excellent | 76-100 | 5-8 |
| Good | 51-75 | 6-12 |
| Fair | 26-50 | 8-15 |
| Poor | 0-25 | 12-20 |

b. Introduced Species

| <u>Species</u> | <u>Percent of the Area Established</u> | | | |
|---------------------|--|--------------|--------------|-------------|
| | <u>100-75</u> | <u>75-51</u> | <u>50-26</u> | <u>25-0</u> |
| Common bermudagrass | 7-10 | 10-14 | 14-20 | 20+ |
| Kleingrass | 7-10 | 10-14 | 14-20 | 20+ |

RELATIVE FORAGE QUALITY OF SPECIES 1/

a. Cattle

| <u>Primary 2/</u> | <u>Secondary 3/</u> | <u>Low Value 4/</u> |
|----------------------|---------------------|-----------------------|
| Little bluestem | Vine mesquite | Annuals |
| Switchgrass | Scribner panicum | Caping panicum |
| Indiangrass | Fringeleaf paspalum | White tridens |
| Big bluestem | Sideoats grama | Purple lovegrass |
| Canada, Virginia | Texas wintergrass | Western ragweed |
| wildrye | Meadow dropseed | Giant ragweed |
| Purpletop | Sedges | Carolina horsenettles |
| Sand lovegrass | Hackberry | Mesquite |
| Texas bluegrass | Tickclovers | Winged elm |
| Beaked panicum | Wildbeans | |
| Florida paspalum | Caura | |
| Maximilian sunflower | Cayfeather | |
| | Daleas | |
| | Snoutbeans | |

b. Deer

| <u>Primary</u> | <u>Secondary</u> | <u>Low Value</u> |
|----------------------|--------------------|----------------------|
| Elm | Oak leaves & twigs | Pecan |
| Red ash | Texas wintergrass | Cottonwood |
| Hackberry | Cayfeather | Ragweeds |
| Greenbriar | Red mulberry | Cocklebur |
| Acorns | | Snow-on-the-Mountain |
| Snoutbeans | | Sunpweed |
| Maximilian sunflower | | Mesquite |
| Tickclovers | | |
| Lespedezas | | |
| Virginia, Canada | | |
| wildrye | | |

c. Dove and Quail 5/

| <u>Primary</u> | <u>Secondary</u> | <u>Low Value</u> |
|----------------------|-------------------|------------------------------------|
| Ragweeds | Trailing wildbean | Mesquite |
| Crotons | Sumpweed | Fluffy-seeded grasses |
| Tickclovers | Gaura | Non-mast-producing woody plants |
| Snow-on-the Mountain | | |
| Sunflowers | | |
| Lespedezas | | |
| Snoutbeans | | |
| Acorns | | |
| Mast | | |

d. Turkey 5/

| <u>Primary</u> | <u>Secondary</u> | <u>Low Value</u> |
|------------------|----------------------|--------------------------|
| Greenbriar fruit | Large seeded grasses | Cottonwood |
| Acorns | & forbs | Mesquite |
| Pecans | | Fluffy-seeded grasses |
| Wildbeans | | |
| Sunflowers | | |

e. Squirrel

| <u>Primary</u> | <u>Secondary</u> | <u>Low Value</u> |
|------------------|----------------------|--------------------------|
| Acorns | Large seeded grasses | Cottonwood |
| Pecans | & forbs | Mesquite |
| Wildbeans | Buds & twigs | Fluffy-seeded grasses |
| Grapes | | |
| Hackberries | | Ragweeds |
| Greenbriar fruit | | |

- 1/ This plant rating system gives guidance on animal preference for plant species as well as indicating competition between kinds of animals for various plants. Grazing preference does not necessarily reflect a plant's ecological place in the climax plant community. Grazing preferences change depending upon the animal; upon plant palatability and nutritive value, stage of growth, season of use relative abundance, availability and plant associations.
- 2/ These species generally decrease under prolonged heavy grazing use.
- 3/ These plants usually increase initially, then decrease under prolonged heavy grazing use.
- 4/ Those plants continue to increase with prolonged heavy grazing use.

- 2/ For these species the terms primary, secondary and low value indicate bird preference only. They do not indicate plant response to feeding pressure; nor do they have any ecological significance.

APPROVED:

John R. Bradbury

AREA CONSERVATIONIST
9/25/72

DATE

Joe E. Morris-

FIELD SPECIALIST - RANGE
9/25/72

DATE